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# REPORT ON THE WORK OF OTHER BODIES PERFORMING WORK SIMILAR TO THAT ENVISAGED FOR THE COMMITTEE ON SCIENCE AND TECHNOLOGY

Note by the secretariat

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## I. INTRODUCTION

1. At its first session, the Conference of the Parties (COP) of the Convention to Combat Desertification (CCD) by decision 21/COP.1 requested the secretariat to consolidate its two previous reports on bodies doing work similar to that envisaged for the Committee on Science and Technology (CST). The reports concerned are contained in documents A/AC.241/67 and ICCD/COP(1)/CST/4.

2. The secretariat was requested to include in the consolidated report supplementary information provided by Governments in accordance with decision 21/COP.1. In all, six relevant additional submissions were received and the present document constitutes the consolidated report, supplemented as requested by the COP.

3. Otherwise the "Directory of Arid Land Research Institutions-1995" published by the Office of Arid Land Studies at Arizona University, the Food and Agriculture Organization of the United Nations (FAO) and the United Nations Environment Programme (UNEP), was pointed to in a previous report as a useful source of information for bodies undertaking work of relevance to the CST.

4. In document A/AC.241/67, one government submission noted that the mechanisms and modalities of potential cooperation between the CST and other bodies needed to be considered by the COP in relation to the CCD.

5. Document A/AC.241/67 also identified possible areas of cooperation derived from the CCD provisions as well as potential methods of cooperation.

## II. SCIENTIFIC COMMITTEES AND PANELS

6. The annex to this document contains the main counterparts of the CST from several environmental conventions and organizations closely related to the CCD.

## III. INTERNATIONAL ORGANIZATIONS

7. The following international organizations have indicated substantive fields of possible cooperation with the CST over the long term.

(a) *Commonwealth Agricultural Bureaux (C.A.B. International)*: use of relevant database with regard to soils and crops that adapt to arid conditions; disease and health in arid areas, particularly in new crop management systems;

(b) *Food and Agriculture Organization (FAO)*: collection, processing and interpretation of meteorological satellite and weather data in Africa; establishment of norms for monitoring land cover and land-use changes; and enhanced use of fodder trees;

(c) *International Crops Research Institute for the Semi-Arid Tropics (ICRISAT)*: comparability of research activities under the Institute's Desert Margin Initiative (DMI) with action programmes under the Convention; evaluation of traditional and local, soil, water, nutrient, vegetation and livestock management practices; identification of socio-economic constraints to improve management practices; development of improved and integrated management technologies to achieve greater productivity of crops, trees and animals; and facilitation of desertification networking of agencies and bodies;

(d) *International Fund for Agricultural Development (IFAD)*: research and collaborative research networks for resource-poor farmers; promotion of demand-driven technology development and diffusion systems; and establishment of participatory systems for monitoring community-based resource management, as well as small-scale soil and water management;

(e) *Intergovernmental Forum on Forests (IFF), successor to the International Panel on Forests (IPF)*: trade and environment in relation to forest products and services; transfer of technology and the need for financial resources; national forest programmes, underlying knowledge; rehabilitation of forest ecosystems in arid and semi-arid areas; criteria and indicators; and forest assessment;

(f) *International Plant Genetic Resources Institute (IPGRI)*: patterns of genetic diversity in wild forage species; *in situ* conservation in the Sahel region to monitor vegetation change over years; strategies for *in situ* conservation and utilization of plant genetic resources in desert-prone areas of Africa; *in situ* conservation of agricultural biodiversity;

(g) *Organisation for Economic Co-operation and Development (OECD)*: Club du Sahel participation in information exchange among African regional and subregional organizations, as well as in working groups on indicators, impact evaluation and financial aspects; and development, in Africa, of integrated information systems by using new information technologies (in collaboration with OSS and UNITAR);

(h) *Sahara/Sahel Observatory (OSS)*: development of integrated information systems and use of new information technologies in Africa; networking of the Convention's national and subregional focal points in Africa; water and soil conservation, land tenure systems, shared water resources; preparing inventories of national organizations concerned with combating desertification;

(i) *United Nations Conference on Trade and Development (UNCTAD)*: technological capacity-building, technology for integrated dryland management, particularly in the context of the Organizations's role as the secretariat of both the United Nations Economic and Social Council (ECOSOC) and the Commission for Science and Technology for Development (CSTD);

(j) *United Nations Development Programme (UNDP)*: indicator development, including indicators of the implementation process of the Convention's programmes, encompassing methods of assessing the desertification status at the national level; promotion of farmer innovations in water management in the drylands; development of new techniques for drought preparedness and mitigation; understanding of drylands' contribution to national economies as well as linkages between urban development and desertification; and networking between concerned actors;

(k) *United Nations Economic and Social Commission for Asia and the Pacific (ESCAP)*: networking of agencies, bodies and institutions in the context of the Commission's role as the secretariat of the Regional Network of Research and Training Centres on Desertification Control in Asia and the Pacific (DESCONAP);

(l) *United Nations Educational, Scientific and Cultural Organization (UNESCO)*: capacity-building, training and preparation of environmental educational material on desertification and drought issues; work on benchmarks and indicators; environmental monitoring through preparation of inventories of plant and animal species at selected sites using the World Network of Biosphere Reserves and in cooperation with the Diversitas Programme (co-sponsored by UNESCO and ICSU); ethnobotany and traditional knowledge; scientific and technical aspects of portions related to desertification in UNESCO's Man and the Biosphere (MAB) Programme and International Hydrological Programme (IHP); assessment and management of water resources in arid and semi-arid lands; promotion of solar and renewable energy through the World Solar Programme 1996-2005;

(m) *United Nations Environment Programme (UNEP)*: development of desertification assessment methodologies and land-quality indicators; amalgamation of modern and traditional scientific knowledge for sustainable use of dryland resources; networks for exchanging information; assessment of climate change impacts and responses in drylands; and diagnostic studies and research on transboundary water bodies;

(n) *United Nations High Commissioner for Refugees (UNHCR)*: energy supply and energy saving measures in refugee camps in desertified areas;

(o) *United Nations Institute for Training and Research (UNITAR)*: training programmes at the local level on the scientific and technical aspects of the Convention; development, in Africa, of integrated information systems by using new information technologies; and networking of the Convention's national focal points and subregional organizations in Africa;

(p) *World Health Organization (WHO)*: health ramifications of desertification and drought, particularly as they relate to migration and water quality in desertified or dryland areas.

## IV. REGIONAL ORGANIZATIONS

8. The following regional organizations have indicated substantive fields of co-operation as follows:

(a) *Arab Centre for the Study of Arid Zones and Drylands (ACSAD)*: databases of water resources, soils, plants, animals and climatology; development of high-yielding, drought-tolerant and disease-resistant wheat and barley varieties; development of gene pools of drought-tolerant fruit trees; establishment of gene banks for the collection of important sheep and goat strains;

(b) *Arab Organization for Agricultural Development (AOAD)*: technologies for increased productivity of rain-fed agriculture in Arab countries; assessment of forestry resources; green belts to combat desertification and desert encroachment in the Arab region; range resources in the Arab region; land and water resource management, land reclamation and water harvesting techniques; natural resource inventories through standardized geo-referenced databases;

(c) *Centre for Environment and Development for the Arab Region and Europe (CEDARE)*: surveys of quality and quantity of freshwater resources; low-cost technology for water conservation; basin-wide joint management of transboundary water resources; feasible technology transfers for soil conservation;

(d) *Concerted Action on Mediterranean Desertification (as reported by one government submission)*: inventorying research programmes on desertification; analyzing work on desertification carried out by different research programmes funded by the European Union;

(e) *Regional Centre for Services in Surveying, Mapping and Remote Sensing (RCSSMRS)*: research, training and provision of information on natural resource and environmental data through the use of techniques such as surveying, mapping, remote sensing and geographic information systems.

## V. SUBREGIONAL ORGANIZATIONS

9. In a manner similar to the regional organizations, the following subregional organizations have indicated substantive fields of possible cooperation as follows:

(a) *Agro-Hydro-Meteorological Regional Centre of the Permanent Inter-State Committee for Drought Control in the Sahel (CILSS)*: collection and analysis of biophysical and socio-economic data for the purposes of food security and natural resource management; transfer of meteorological knowledge and know-how to the national level and centres of production;

(b) *Institute of the Sahel (INSAH) of CILSS*: options for developing food security and natural resource management in the Sahel; scientific and technical research in the CILSS subregion; inventorying and evaluating research institutions and organizations in CILSS countries; follow-up indicators for implementation of the Convention; promotion of regional and subregional cooperation in research and development;

(c) *Southern African Development Community (SADC) / Southern African Centre for Cooperation in Agricultural Research and Training (SACCAR)*: sorghum, millet and grain legume improvement; land and water management research; agroforestry research; development of national plant genetic resources management.

## VI. NATIONAL ORGANIZATIONS

10. The following countries pointed to their national organizations and information relevant to the CST work:

*(a) Egypt:*

- *Agricultural Research Centre*: improvement of technologies and services available to farmers; organization, promotion, coordination and review of agricultural research and priorities; as well as planning and development of extension programmes;

- *Alexandria University*: recommendations regarding the collection, analysis and exchange of data and information related to desertification; and recommendations for promoting cooperative and multidisciplinary research work on combating desertification;

- *Cairo University*: raising awareness of the potential threats of drought and desertification; multi-disciplinary research work on desertification; and advice on the institutional structure of national programmes to combat desertification;

- *Desert Research Centre*: directing, collecting, and analysing research work and information on conservation and development of land and water resources;

- *Egyptian Environmental Affairs Agency*: identification and use of adaptable technologies to combat desertification in rain-fed and range lands; assessment and development of traditional knowledge to sustain local area development;

- *National Authority for Remote Sensing*: information on land resources and their potential; monitoring changes in land resources due to different cropping patterns and other uses; and work on early warning signals against drought and sand dune movement;

- *National Water Research Centre*: technical and applied studies on general policies for irrigation and drainage; and assessment of surface and underground water resources for their utilization in an efficient and cost-effective manner;

- *National Research Centre*: promoting research work, particularly in the areas of agricultural technologies and food security; and collecting information, analysing, assessing and reporting on the impact of developments in science and technology in relation to desertification;

- *University of El Zagazig*: monitoring changes in land, water and vegetation resources as related to degradation processes; examination of the social, scientific, technological, and feasibility of research on combating desertification;

*(b) Israel:*

- *Blaustein Institute for Desert Research of the Ben-Gurion University (BIDR)*: research on water resources in arid environments and their optimal exploitation; use of brackish water and biological remediation of sewage water; desalination of marginal water; desert ecosystem matters such as the physiological adaptation of animals to desert conditions, survival strategies, population ecology, plant ecology, animal plant interaction, animal-plant-environment interaction and the effects of global climate change on biodiversity; social and cultural changes required in life-style and tradition of desert populations in developing countries; climate-conscious architecture for the design of the human habitat in deserts; development of environmentally friendly construction materials characterized by low-energy consuming production processes; regional planning applied to the development of desert communities; work on sustainable intensive production of crops in arid regions; introduction of plant species suitable for cultivation in the desert; agronomic aspects of plant cultivation in arid regions with run-off water irrigation; agriculture on desert dunes and saline water

irrigation; and development of means of livelihood for desert dwellers through animal breeding;

(c) *Japan:*

- *Desertification Subcommittee/the Global Environment Research Planning Committee/Japan's Environment Agency*: managing and controlling research plans on controlling desertification worldwide;

- *Investigation and Examination Committee on Desertification/Land Degradation/Japan's Environment Agency*: inventorying traditional knowledge on desertification to support CST activities;

(d) *Morocco:*

- *Centre for Pastoral Seed Production*: collection, reproduction and distribution of biological material for rehabilitating pastoral land;

- *Engineers' Forestry National School (L'ENFI) of Sale*: promotion of economies in arid and desert zones;

- *National Research Centre on Forestry/Soil Conservation, Water and Forest Administration (AEFCS)*: development and conservation of forestry resources to combat in a general manner ecosystem degradation and in particular land degradation;

- *Royal Institute of Forestry Technicians of Sale*: forestry work including work to combat desertification;

(e) *Norway:*

- *Drylands Coordination Group (DCG) in Norway*: development cooperation in drought-affected countries; improved livelihood security for vulnerable households in drought-prone, marginal areas, especially in Africa; increased food security; sustainable management and use of natural resources, increased access to community-based services such as health, education and clean water; and competence building and institutional strengthening at local and regional levels.

## VII. NON-GOVERNMENTAL ORGANIZATIONS

11. The following non-governmental organizations have indicated possible fields of substantive cooperation as follows:

(a) *International Commission on Irrigation and Drainage (ICID)*: control of evaporation from soil and open water surfaces in water harvesting structures; impact of drought on irrigated agriculture; food security and sustainable development in Africa;

(b) *International Council of Scientific Unions (ICSU)*: research on dryland agricultural systems and land management practices;

(c) *International Society of Soil Science (ISSS)*: research, information exchange and indicators on dryland soils in the context of work of the ISSS Commission on Soils and the Environment;

(d) *Institute for Development Anthropology (IDA)*: economic activities of women in pastoral and agropastoral societies in Africa, the Middle East and Central Asia; conventional dam management of floodplain rivers in the dry tropics; forestry in grazing systems;

(e) *Third World Environment and Development (ENDA)*: traditional know-how and practices in rural agroforestry, land administration, and combating land degradation; transfer and promotion of appropriate energy technologies;

(f) *World Conservation Union (IUCN)*: research and information exchange related to conservation and utilization of dryland biodiversity, including in the context of work of the IUCN's Commission on Ecosystem Management;

(g) *World Wide Fund for Nature (WWF)*: information exchange on dryland forests and wetlands in deserts or dryland areas or areas threatened by desertification.

Annex

PROFILES OF RELEVANT SCIENTIFIC AND TECHNICAL BODIES

FRAMEWORK CONVENTION ON CLIMATE CHANGE

| | |
|---|---|
| NAME OF BODIES/ACRONYM: | Subsidiary Body for Scientific and Technological Advice (SBSTA); Subsidiary Body for Implementation (SBI) |
| PARENT ORGANIZATION: | Conference of the Parties (COP) of the United Nations Framework Convention on Climate Change (FCCC) |
| LEGAL AUTHORITY: | FCCC, Articles 9 (SBSTA) and 10 (SBI); and relevant decisions of the COP, in particular decision 6/CP.1 and any other relevant work resulting from the adoption of the Kyoto Protocol |
| PRINCIPAL FUNCTIONS: | SBSTA: (a) provides liaison between scientific assessments and policy needs of the FCCC; (b) provides advice on policy implications of knowledge on climate change and its effects, by reviewing implications of scientific, technical and socio-economic information; (c) prepares guidelines for national communications, and for reporting on activities implemented jointly, including on methodological issues; (d) identifies relevant technologies and advises on promoting their development and/or transfer; (e) advises on scientific programmes, on international cooperation in relevant research and on support for capacity-building in developing countries<br><br>SBI: considers information based on, *inter alia*, national communications to assess the implementation of commitments and the effect of steps taken by the Parties to reduce or limit greenhouse gas emissions in the atmosphere |
| POTENTIAL SUBSTANTIVE AREAS OF COOPERATION WITH CST: | Stabilization, within an appropriate time-frame, of greenhouse gas concentrations in the atmosphere that would represent dangerous anthropogenic interference, including emissions from desertification activities; development of indicators of climate change and their significance for desertification, and vice versa; cooperation in areas of technology development, deployment and transfer; cooperation and programmes in areas of scientific research and systematic observation |
| ROSTER OF EXPERTS: | Yes |

## CONVENTION ON BIOLOGICAL DIVERSITY

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|---|---|
| NAME OF BODY/ACRONYM: | Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) |
| PARENT ORGANIZATION: | Conference of the Parties (COP) of the Convention on Biological Diversity (CBD) |
| LEGAL AUTHORITY: | CBD, Article 25 and relevant decisions of the COP, in particular decision IV/16* taken at COP 4 held on 4-15 May 1998. Decision IV/16 reviewed the modus operandi of SBSTTA |
| PRINCIPAL FUNCTIONS: | Provides scientific and technical assessments of the status of biological diversity and effects of types of measures taken under the CBD; identifies relevant innovative, efficient and state-of-the-art technologies and know-how; provides advice on relevant scientific programmes and international cooperation in research and development related to conservation and sustainable use of biological diversity |
| POTENTIAL SUBSTANTIVE AREAS OF COOPERATION WITH CST: | Conservation and sustainable use of components of biological diversity in drylands; fair and equitable sharing of the benefits resulting from the utilization of dryland genetic resources; development of indicators of biological diversity and their significance for desertification, and vice versa; cooperation in research and development related to conservation and sustainable use of biological diversity in the drylands |
| ROSTER OF EXPERTS: | Yes (for forest biological diversity and a roster for agro-biodiversity is in preparation) |

*Annex II to decision IV/16 specifies the following item for in-depth consideration by SBSTTA at COP 5: dryland, Mediterranean, arid, semi-arid, grassland and savannah ecosystems sustainable use, including tourism and access to genetic resources

## GLOBAL ENVIRONMENT FACILITY

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|---|---|
| **NAME OF BODY/ACRONYM:** | Scientific and Technical Advisory Panel (STAP) |
| **PARENT ORGANIZATION:** | Council of Global Environment Facility (GEF) |
| **LEGAL AUTHORITY:** | Instrument for the Establishment of the Restructured GEF |
| **PRINCIPAL FUNCTIONS:** | Provides objective, strategic scientific and technical advice on GEF policies, operational strategies and programmes; conducts selective reviews of projects in certain circumstances; interacts in a complementary manner with relevant scientific and technical bodies including potentially with the CST of the Convention to Combat Desertification; advises on the development of scientific and technical criteria, as well as on scientific and technical advice regarding priorities for GEF funding |
| **POTENTIAL SUBSTANTIVE AREAS OF COOPERATION WITH CST:** | Interrelations of desertification and drought issues with those of climate change, biological diversity and international waters; choice of indicators to measure project impact in these focal areas as they relate to desertification. |
| **ROSTER OF EXPERTS:** | Yes |

INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE

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| NAME OF BODY/ACRONYM: | Intergovernmental Panel on Climate Change (IPCC) |
| PARENT ORGANIZATIONS: | World Meteorological Organization (WMO) and the United Nations Environment Programme (UNEP) |
| LEGAL AUTHORITY: | WMO Executive Council and UNEP Governing Council resolutions and decisions |
| PRINCIPAL FUNCTIONS: | Assesses on a comprehensive, objective, open and transparent basis, scientific, technical and socio-economic information relevant to understanding the risk of human-induced climate change, its potential impacts and options for adaptation and mitigation |
| POTENTIAL SUBSTANTIVE AREAS OF COOPERATION WITH CST: | Interrelation of drought and desertification with greenhouse gas emissions and sinks, as well as mitigation of climate change and adaptation to it |
| ROSTER OF EXPERTS: | Yes |

## WORLD METEOROLOGICAL ORGANIZATION

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|---|---|
| NAME OF BODY/ACRONYM: | Hydrology Commission (CHy), Agricultural Meteorology Commission (CAgM), Climatology Commission (CCL) |
| PARENT ORGANIZATION: | World Meteorological Congress |
| LEGAL AUTHORITY: | World Meteorological Convention |
| PRINCIPAL FUNCTIONS: | CHy does studies on water balance, hydrology assessments, global hydrological cycle and hydrological forecasting; CAgM develops agrometeorological services, including meteorological aspects of desertification and drought; CCL studies climate and its effect on human activities and application of meteorological information for sustainable development |
| POTENTIAL SUBSTANTIVE AREAS OF COOPERATION WITH CST: | Studies of water balance; assessments of the global hydrological cycle and hydrological forecasting; development of agrometeorological services; drought preparedness and management including contingency plans; use of agrometeorological data in food security systems; capacity-building for assessment and systematic observation of meteorological data; promotion of use of meteorological data and information for preventive measures to avoid land degradation; transfer of knowledge and technology via training on drought management and desertification; research and development on causes and effects of drought and desertification |
| ROSTER OF EXPERTS: | Yes |

RAMSAR CONVENTION

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|---|---|
| NAME OF BODY/ACRONYM: | Scientific and Technical Review Panel (STRP) |
| PARENT ORGANIZATION: | Conference of the Parties (COP) to the Convention on Wetlands of International Importance especially as Waterfowl Habitat (Convention on Wetlands, Ramsar Convention) |
| LEGAL AUTHORITY: | Ramsar Convention; COP 5, resolution C.5.5 and COP 6, resolution VI.7 |
| PRINCIPAL FUNCTIONS: | Provides scientific and technical assistance to the Bureau and Standing Committee and, through them, to the COP (Tasks are entrusted on an annual basis and include: identification of priorities for the application of monitoring procedures and evaluation of the application of guidelines for the implementation of the "wise use" concept; evaluation of the application of the "Guidelines on management planning for Ramsar sites"; definition of ecological character and guidelines on monitoring change in it) |
| POTENTIAL SUBSTANTIVE AREAS OF COOPERATION WITH CST: | Wetlands in drylands management planning taking into account Ramsar Strategic Plan for 1997-2002 |
| ROSTER OF EXPERTS: | Yes |

## BONN CONVENTION

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| NAME OF BODY/ACRONYM: | Scientific Council |
| PARENT ORGANIZATION: | Conference of the Parties (COP) to the Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention, "CMS") |
| LEGAL AUTHORITY: | Bonn Convention, Article VIII, COP IV, resolution 4.5 |
| PRINCIPAL FUNCTIONS: | Provides overall advice on scientific matters to COP and joint agreed activities |
| POTENTIAL SUBSTANTIVE AREAS OF COOPERATION WITH THE CST: | Specific conservation and management measures for migratory species in dryland areas through, for example, an agreement on Sahel-Saharan ungulates; selection and monitoring of small-scale pilot projects to promote implementation in areas of interest to both CMS and the Convention; coordination of research on migratory species to ascertain the conservation status of migratory species in drylands |
| ROSTER OF EXPERTS: | The COP appoints experts to meetings of the Scientific Council |